

Misura delle architetture su carta: pratiche grafico-analitiche di uno studente di Architettura intorno al 1787 | Measure of Architectures on Paper: Graphic and Analytic Practices of a

*Original*

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# Measure of Architectures on Paper: Graphic and Analytic Practices of a Student of Architecture around 1787

Martino Pavignano

## Abstract

*The essay critically investigates some drawings elaborated by Giovanni Battista Cipriani during his architectural studies with Giuseppe Palazzi, in the 1780s in Rome. Relationships between these drawings and their known graphic sources are studied and can be traced back to some plates of the first Libro primo Scelta di varii tempietti antichi di Giovanni Battista Montano (Rome 1624) in the edition of 1684. These drawings have a double meaning for the history of Representation, as they are the results of an eidetic practice that acts an interpretative process of a given graphic source – which has become a building on paper to be surveyed and synthetically redrawn – or as the final result of a process of partial reconfiguration with heuristic values, at least as regards the use of drawing as a tool for representing architect's ideas and projects.*

*From this point of view, Cipriani's works become interpreting tools for the practice of surveying drawing and graphic sources, as well as symbols of the value of drawing intended as an expression of the memory of its author, as it happened when re-annotated on the Libraccio o miscellanea di memorie spettanti alle belle arti (1801 e seg.), the model of the 'opera omnia' representing Cipriani's concept of eidetic knowledge.*

*Keywords: Giovanni Battista Cipriani, architectural education, graphic source, critical interpretation, graphic analysis.*

## Introduction

Drawing, here intended as “a cognitive and creative place where the idea is born and reveals itself in its potential” [Purini 2010, p. 12], is at the basis of the practice of architecture. Similarly, drawing is the result of those transformations that affected the various civilizations and their respective cultural climates, leading to the multiplication of occasions that allowed “to arouse those stimuli and those communicative opportunities that extended the practice of representation to all human activities, especially to those relating to the use of the image both as a qualified objective of aesthetic communication and information and as a design tool for all sorts of artifacts” [de Rubertis 2018, p. 24].

Likewise, architecture has always been linked to the concept of measurement, here understood as an essential element for the formalization of architectural geometries or as the result of a process of dimensional analysis of the same [Ippoliti 2000, pp. 51-68]. Indeed, if we consider the latter as one of the possible expressions of geometry, of which Guarino Guarini remembered the founding role for architectural practice [Guarini 1737, p. 3], then it is clear how much this connection is elevated to the role of supporting structure for, not just subjugated by, architecture, as for design and analysis purposes. Then, the architect, and student, must know how to decline the measure according to its applications, to reach a critical knowledge of the

world around him [Docci, Maestri 2009]. Therefore, the architect's training must deal with the concept of measurement itself, mainly in its practical declination as outcome of instrumental operations which is functional to the metric knowledge of an artifact or a context whose prerogatives must enter into be part of the cultural background to be structured before any heuristic process having architecture as main goal [De Simone 1990, pp. 224-226].

In this context, the contribution proposes an analysis of some drawings made by Giovanni Battista Cipriani (1765-1839) during his training as an architect, in the last quarter of the XVIII century in Rome.

### Giovanni Battista Cipriani

Born in Siena, Cipriani studied Architecture and became draftsman, etcher, and perceptive surveyor [Pavignano 2019, pp. 94 and 145]. He first undertook fine arts studies in Siena, with the sculptor Giuseppe Silini and, perhaps, technical studies with the engineer Bernardino Fantastici. In the early eighties of the XVIII century he had the opportunity to move to Rome where he undertook architectural studies with Giuseppe Palazzi [Debenedetti 2006, p. 235]. In this context, maybe thanks to the guidance of Palazzi, Cipriani got in contact with the cultural circle headed by the philosopher Leonardo de Vegni [Debenedetti 2015, p. 208] and, consequently, with the "cultural circle of Francesco Milizia" [Olschki 1940, p. 8]. Thanks to these cultural 'connections' Cipriani will turn his interest more towards drawing, representation and communication of Architecture, rather than architectural design [Pavignano 2019, pp. 52, 53]. Here, I cite his first important work as an 'illustrator' of the architectural fact, which occurred through the collaboration with Giandomenico Navone for the *Nuovo metodo per apprendere insieme le teorie, e le pratiche della scelta architettura civile* [Navone, Cipriani 1794].

Cipriani developed his professional activity around to provide adequate tools – both for graphic quality and for communication synthesis – mainly for architectural education and dissemination. Examples are the three volumes of *Monumenti di fabbriche antiche estratti dai disegni dei più celebri autori* [Pavignano 2019, pp. 68-71, 78, 96-98], the vedute of the *Edificj antichi e moderni di Roma* [Debenedetti 2017; Pavignano 2020] or the *Itinerario figurato di Roma* [Pavignano 2019, pp. 145-147].

This contribution proposes a renewed critical inspection of the *Taccuino Lanciani 33*, preserved at the BiASA in Rome, whereas I do not discuss here the overall values of Cipriani's corpus of original work [Pavignano 2019].

### Methodological approach

The analysis is structured in several phases, consequential to each other and removed from the consolidated practice of the discipline of Drawing. First, I identified the drawings of interest contained in the *Taccuino Lanciani 33* (personally retrieved at BiASA, table 1) [1], then I carried out a comparison with the possible graphic sources used by Cipriani. In this regard, I chose to use the edition of Montano's *Raccolta de Tempii, e sepolcri disegnati dall'antico* dated to 1684 (acquired through the central object database Arachne), identified by Pasquali [Pasquali 2002] as the source of the captions written by Cipriani [2]. Having recognized the used plates, I collected in table 2 the data relating to: title of the object drawn by Cipriani, volume and table of Montano 1684 and related captions. There, I provided a specific comparison with Montano's *editio princeps* [Montano 1624] (personally retrieved at BNT0). In this way, it was possible to define a first synoptic framework of drawings and respective graphic sources. Subsequently, I processed the images acquired using CAD software to define the proportions of some of the Cipriani's buildings, then I proceed with a critical comparison between the work of Cipriani and that of Montano, on the basis of retrieved data on the survey of the drawings. This phase was carried out following what has been stated regarding the study by Ursula Zich of Palladio's *Quattro libri di Architettura* [Zich 2009].

### Taccuino Lanciani 33

The *Taccuino* consists of sixteen bounded papers (cc. 1r-16v) and three loose papers (cc. 17r-19v), of medium format 242 x 184 mm (fig. 1) and has been previously noted [Pasquali 2002; Debenedetti 2015]. All the sheets, often signed 'GBC', can be dated between 1786 and 1791, due to annotated dates, and is introduced by a cover with the drawing of the façade of

Tab. I. Tacuino Lanciani 33 contents.

Soggetto	Titolo	Carta	Disegno
0	Chiesa di San Crisogono	1r	Facciata (prospetto)
		1v	vuota
1	Sepolcro di forma quadrata fuori; e dentro tonda, ornato di Corintio, di cui vedonsi i vestigi fuori di Porta Maggiore a mano dritta in Roma. Copiata per istudio, e fattone quest'abbozzo per notarvi le misure a parte	2r	Pianta
		2v	Membri in grande (particolari)
		3r	Alzato (prospetto)
		3v	vuota
2	Tempio di Bacco fuori di Porta Pia in Roma	4r	Pianta
		4v	Alzato (prospetto con particolari)
		5r	Spaccato (sezione con particolari)
3	Tempio antico	5v	Alzato (con particolari)
		6r	Pianta (con particolari)
		6v	Spaccato (semi-sezione con particolari)
4	Tempio antico vicino Tivoli	7r	Metà d'una pianta
		7v	Alzato (mezzo prospetto con particolari)
5	Sepoltura fatta dagli antichi d'Ordine Dorio, e Corintio	8r	Pianta
		8v	Elevazione (mezzo prospetto)
6	Edificio antico non definito	9r	Pianta (mezza pianta)
*	Appunti vari	9v	Testi
7	Tempio Antico, Copiato dal Compagno	10r	Pianta (con particolari)
*	Appunti vari	10v	Testi
8	Tempio Antico che vedesi fuori di Roma molto Rovinato	11r	Pianta (mezza pianta)
		11v	Facciata (mezzo prospetto con particolari)
9	Tempio Antico d'Ordine Corintio nella Campagna Romana fuori di Porta Pia	12r	Metà della pianta (mezza pianta con particolari)
		12v	Alzato (mezzo prospetto con particolari)
10	Tempio Antico	13r	Pianta (pianta con particolari)
		13v	Elevazione (mezzo prospetto con particolari)
11	Tempio Antico	14r	Pianta
		14v	Elevazione (mezzo prospetto con particolare)
12	Sepolcro fatto dagli Antichi a Palestrina d'Ordine Corintio	15r	Pianta
		15v	Membri dell'Architrave, Fregio, Cornice (particolari)
		16r	Facciata (prospetto)
13	Tempio Antico	16v	Pianta
		17r	Spaccato e Alzato (metà sezione e metà prospetto con particolari)
		17v	appunti vari, con indicazione di «ll di 25. ottobre mandai gli altari ideati / al G. S. F. / GBC»
14	Nicchia nell'esterno del Vaticano. Architettura di Michelangiolo Buonaroti	18r	Prospetto
15	Palladio Ordini d'Architettura, Capitello lucidato da altro fatto / da Mauro Tesi (capitello corinzio in prospettiva)	18v	Prospettiva
16	Indice del Libretto	19r	fabbriche a <...> / contenute in questo Libretto (elenco errato dei contenuti del Tacuino)
*	Appunti vari	19v	Testi

Tab. 2. Comparison between objects in Cipriani [1789-1791] and Montano [1624; 1684a; 1684b].

Cipriani 1784-1791		Montano 1624	Montano 1684			
		Libro secondo			Libro terzo	
Soggetto	Titolo (da didascalia)	Tavola	Tavola	Didascalia	Tavola	Didascalia
1	Sepolcro di forma quadrata fuori; e dentro tonda, ornato di Corintio, di cui vedonsi i vestigj fuori di Porta Maggiore a mano dritta in Roma. Copiato per istudio, e fattone quest'abbozzo per notarvi le misure a parte				XXV	Di questo sepolchro con forma quadrata fuori, e dentro tonda, ornato di Corintio si vedono anco i vestigj fuori di Porta Magio a mano dritta.
2	Tempio di Bacco fuori di Porta Pia in Roma	58	39	Tempio di Bacco fuori dalla Porta Nomentana detta Pia, dedicato a S.a Costanza		
3	Tempio antico	61	42	Tempio antico fuori di Porta Maggiore		
4	Tempio antico vicino Tivoli		28	Tempio antico vicino Tivoli		
5	Sepoltura fatta dagli antichi d'Ordine Dorio, e Corintio				XXIV	Sepoltura fatta dalli Antichi di Ordine Dorico e Corinthio
6	Edificio antico non definito	21	14	Tempio antico presso Pozzuolo		
7	Tempio Antico, Copiato dal Compagno	14			XXVIII	Sepolcro antico vicino l'antecedente fuori la Porta Celimontana
8	Tempio Antico che vedesi fuori di Roma molto Rovinato	60	16	Tempio antico posto anche dal Serlio il quale dice di averlo disegnato nella Campagna di Roma	XX	Tempio Antico
9	Tempio Antico d'Ordine Corintio nella Campagna Romana fuori di Porta Pia				XVII	Tempio Antico di Ordine Ionico nella Campagna di Roma fuori di Porta Pia. la figura di questa pianta è triangolare, composta di quadrati e tondi.
10	Tempio Antico				X	Questo Tempio dicono essere stato edificato in Campidoglio quando li Galli Scoperti dal stridor delle Oche volevano per tradimento pigliare la Rocca di esso, per la poca guardia delle Sentinelle; una delle quali per castigo fù gettata dalla sumità di essa Rocca.
11	Tempio Antico				II	Tempio della Fortuna Virile
12	Sepolcro fatto dagli Antichi a Palestrina d'Ordine Corintio				XXIII	Sepolcro fatto dagli Antichi a Palestrina di Ordine Corinthio
13	Tempio Antico	8	8	Tempio antico a Palestrina, di mattoni arrotati		
14	Nicchia nell'esterno del Vaticano. Architettura di Michelangiolo Buonaroti			Nessun riscontro		
15	Palladio Ordini d'Architettura			Nessun riscontro		

the church of *San Crisogono*, attributable to the studies of Giovanni Battista Soria, a pupil of Giovanni Battista Montano [Debenedetti 2015, p. 208]. All the drawings are traced with dry technique on paper and subsequently brushed with dark ink, as well as variously watercolored.

Without counting the *San Crisogono* for the analysis, Cipriani represents thirteen ancient buildings in Rome, in the Roman countryside, in Palestrina and Pozzuoli, drawing more or less complete sets of quoted 2D views (or half-views): plan, elevation and section.

Table 1 summarizes the contents of this *Taccuino*.

Objects 2, 3 and 13 have a complete description with all the three types of views; objects 1, 4, 5, 8, 9, 10, 11 and 12 are represented by means of a plan and an elevation; objects 6 and 7, the latter with no dimensions, are only described by a plan. All the drawings are quoted in Roman palms (fig. 1). With regard to the use of half-views, it is evident that in the Roman cultural context – already pervaded by the neoclassical spirit on the behalf of Milizia's idea – the representation of ancient buildings could not fail to highlight their symmetries, making a building even only half drawable and not only for just saving time [Spallone 2004, p. 68]. In this regard, even if the views describing the same building are not directly and geometrically correlated together, as they are drawn on separate sheets, the combining on the same page half-section and half-elevation would allow not only to highlight the symmetry Montano's model, but to create a link between the such representations. Unfortunately, in the only one case where a half elevation and a half section are placed side by side on the same page this correlation is not that evident, due to different scales (fig. 2).

Cipriani drawn a large amount of architectural details for each example, labelling and recalling them on elevations and sections with letters. The *Taccuino* is completed by some papers bearing various notes, a perspective of a composite capital, with a notation about Palladio Orders of Architecture [...] Capital traced from another made by Mauro Tesi and a recess of a building in the Vatican, designed by Michelangelo, as well as an incorrect index of the contents of the *Taccuino*.

The interest raised by this manuscript is mostly due to the presence of objects that take the form of represen-

tations drawn from works by other authors, as already recalled [Pasquali 2002, P. 18]. Most of them – or all of the objects analysed – are inspired by the work of Montano [Montano 1684], or from his editions of 1638 or 1681 [Debenedetti 2015, p. 209].

In table 2 propose an intersection of the data related to the objects drawn by Cipriani and the respective Montano's plates.

As example of object described by means of three views, I show the object no. 3, *Tempio antico* (fig. 3).

The same object proposes a critical observation regarding the representation of the staircases (fig. 3b). Cipriani showed interest in the conformation of the stairs, of which he redrawn the detail. In fact, he does not fail to specify the distributive role of the stairs and tended to insert typological elements attributable to ramps where Montano did not indicate their presence, for example in object 4, *Tempio antico vicino a Tivoli*, c. 7r, where the author added few steps to access the heads of the exedra behind the temple in doors (fig. 4b). Similarly, he changed the structure of the stairs in the plan of the object 7, *Tempio antico copiato dal Compagno*, c. 10r, drawing a C rather than L disposition (fig. 4c, 4d); furthermore, in the plan of object 12, *Sepolcro fatto dagli Antichi a Palestrina d'Ordine Corintio in Palestrina*, c. 15r, Cipriani took the opportunity to analyse the symbol of the spiral staircase inserted inside the wall, by means detailing the representation with quotes (fig. 4f).

As for the objects described by means of a plan/half plan and half elevation accompanied by a semi-section, for example no. 10, *Tempio antico* shown in figure 5b, c, with the corresponding Montano's plate.

Cipriani explicitly indicated few objects as copied by other authors, such as no. 7 by an unspecified "*Compagno*" (mate) and 15 as reproduced on translucent paper by another drawn by Mauro Tesi, with the specification that it is an architectural order by Palladio. In this case the drawing is in fact traced on a piece of paper glued on the sheet (c. 18v). Perhaps Cipriani referred a drawing by the painter and architect Mauro Antonio Tesi, whose collection of drawings was published in Bologna right in 1787. It should also be noted that the practice of translucent paper, represented here by the copy of the composite capital, would have been proved to be very common, if not fundamental, in the graphic work of Giovanni Battista Cipriani.



In fact, we find many pieces of this paper, filled with significant signs – now the temple plan, now a bas-relief, now a detail of a window in other notebooks by the Author – for example in the 1828 manuscript *Dei Tempj antichi di Roma e altri monumenti raccolti dopo le recenti escavazioni* (BAN 1580/4), c. 7v, or at c. 67v of the 1834 manuscript *Itinerario figurato negli edifici di Roma* (BAN 1698).

It is interesting to note that the author cited only one source for his drawings within this *Taccuino Lanciani* 33, without highlighting the 'graphic debts' to Giovanni Battista Montano. Nevertheless, he will cite this work in the *Libraccio*, object 436, *Mole o Mausoleo di Adriano*, adding the sign: "dal Montano" [Cipriani 1801 et seq., c. 65v].

Among the sheets of the *Taccuino* it should be noted that there are some quotations taken from the text of Girolamo Fonda, c. 9v. Cited texts refer to the *Traiana* and *Antonina* columns that would have been at the objects of a proposal for publication by Cipriani himself. He never completed such book, but we can still read the handwritten drafts in the 1823 *Delle Colonne Trionfali* (BAN 1602/9).

### Copy and interpretation, proportions and traces

Previous analysis of the documents of the *Taccuino Lanciani* 33 noted how Cipriani operated the copy of graphic sources only for building plans, but not for the façades [Debenedetti 2015, p. 209]. I will add elements in partial confirmation of this thesis in the next section (see figs. 8 and 9). It is immediately clear that the Cipriani's drawings were not configured as an original imitation of a reference model, but as a pseudo-design interpretation, or rather as a re-signification of the envelope-signifier of the buildings. In a sense, Cipriani re-designed that part of artifact, real or virtual, which is configured as an element of conjunction between the internal and the external space and the external [De Fusco 2001, p. 159]. This pseudo-design operations were fact based on the reassignment of dimensions (in Roman palms) to the individual drawn elements, varying them from what could have been measured on Montano's plates. Moreover, it is clear how the individual details designed by Cipriani are configured as applications of the Vitruvian rules [Debenedetti 2015,

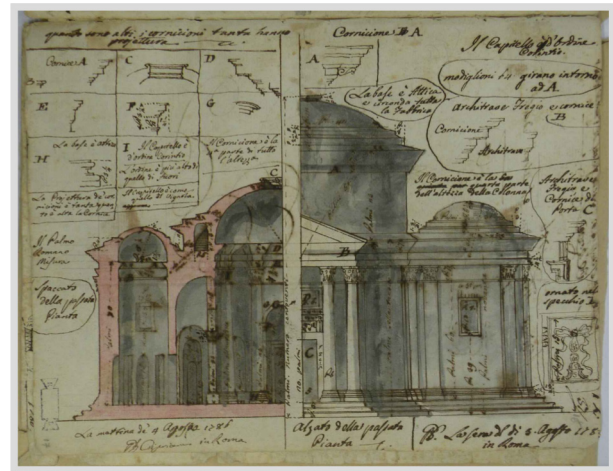


Fig. 2. Half section and half elevation of a Tempio antico, Cipriani [1786-1791, c. 17r].

p. 209] and as free interpretations of graphic sources [Pavignano 2019, p. 61].

Cipriani's graphic elaborations are thus attributable to the prerogatives of renewal of the teaching of architecture carried out also within the cultural circle of Milizia [Gambutti 2014]. Furthermore, they also prove to be graphic exercises designed to divert the difficulties related to the reading most of the perspective sections by Montano. These drawings, in fact, although generally identifiable as frontal vertical picture perspectives, were traced in an approximate manner. This could be confirmed by the comparison with a couple of drawings directly attributed to Montano and referrable as preparatory schemes of many published tables [Dallaj 2014, p. 145, fig. 29 and p. 146, fig. 30]. Even here, it is possible to notice the precise execution of the plans, with rigorous geometric grids, in open contrast to the approximative realization of the perspective views.

It is however interesting to note how Montano's plates, obtained through a process of translating drawings into engravings, show many traces of the geometric construction of the plans [3], such as construction lines, centres of circumferences, etc., i.e. highlighted with numbers from 1-3 in figure 6.



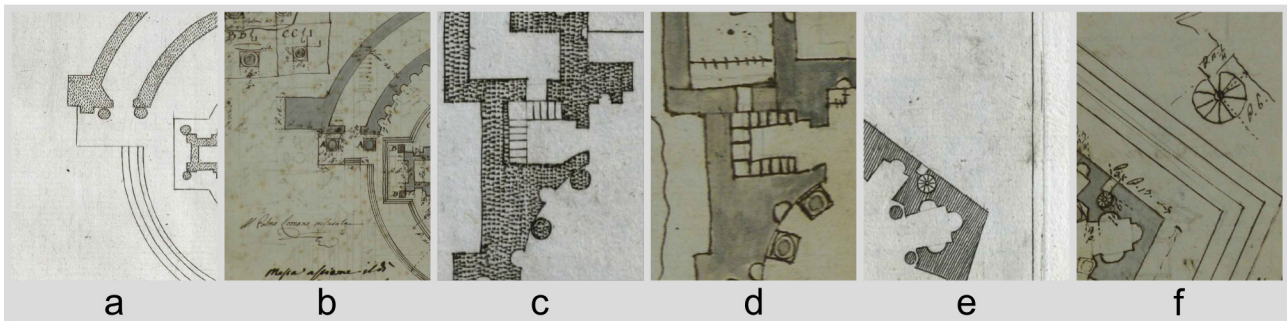
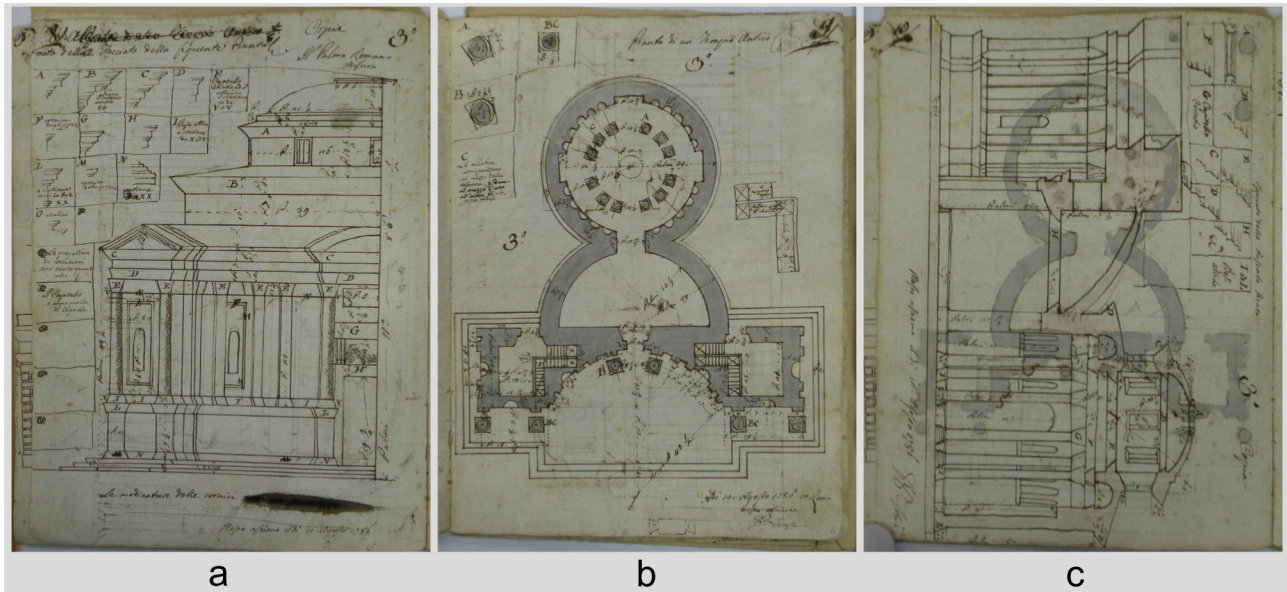


Fig. 3. Tempio antico. a) half elevation with details; b) plan with details; c) section with details. Cipriani 1786-1791, cc. 5v, 6r, 6v.

Fig. 4. Examples of Cipriani's interpretation of staircases. a), c), e) details of Montano; Montano 1684a, tav. 28; 1684b, tav. XXVIII; 1684a, tav. 8. b) d) f) details from drawings by Cipriani; Cipriani 1786-1791, cc. 7r, 10r, 15r.

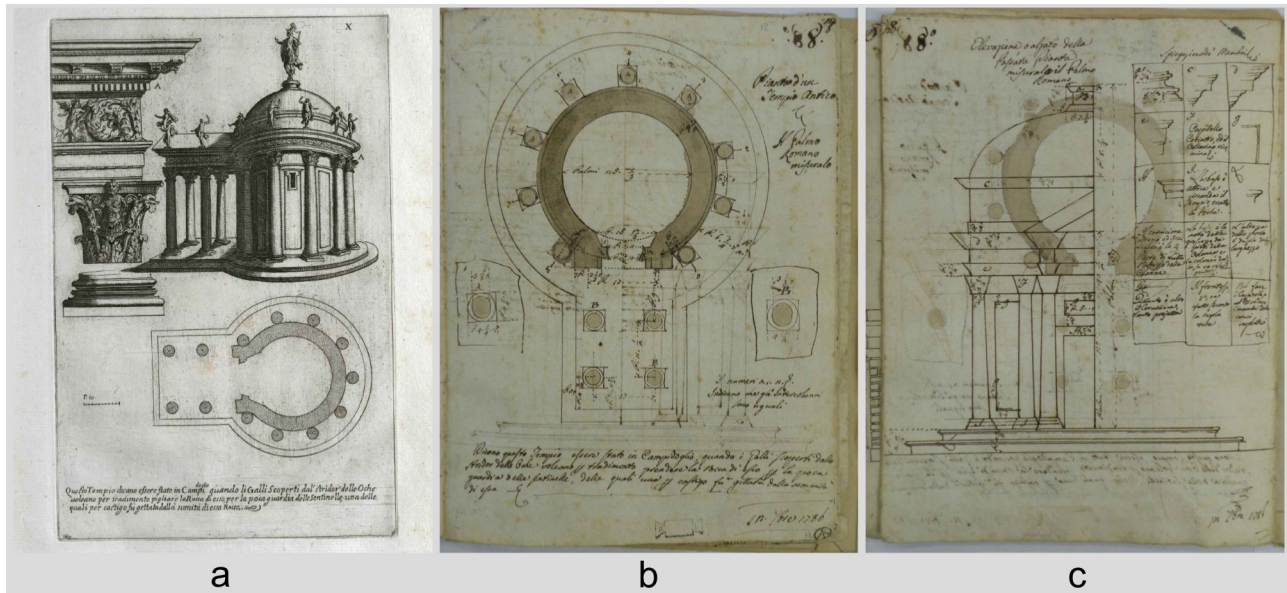


Fig. 5. Tempio antico [in Campidoglio]: a) Montano's description: Montano 1684b, tav. X; b) GBC, plan; c) half section with details: Cipriani 1786-1791, cc. 13r, 13v.

This information, perhaps of secondary importance for a common reader, was probably of great help for the work of Cipriani and other Architecture students who, like him, undertook the interpretative coping process, described above.

All Cipriani's drawings were traced mainly freehand, but there are traces of signs made with the aid of tools used to describe the main lines: i.e. we find the use of a compass for tracing the circumferences of greater diameter. If we analyse the plan of the object 2, *Tempio di Bacco fuori di Porta Pia in Roma*, c. 4r, the lines drawn in graphite can be clearly observed. The author could have drawn them to define the main alignments of part of internal steps and external wall next to the main hall. In addition, there are also traces of compass, being used to define the thickness of the wall of the circular hall, the positioning of the axes of the columns and the rise of the outermost step (fig. 7b). Here Cipriani generally maintained the correct proportions between plan and elevation (except for

the intercolumns of the portal), however he significantly increased the width of the section, while decreasing its height (fig. 7a). Perhaps this is due to the size of the paper used.

### Survey and restitution of graphic source

The dimensions on Cipriani's drawings are explanatory of his personal interpretation of the graphic source. If we take object 1 as an example, we can try to verify the author's dimensional assumptions. Starting by defining the basic square in which to inscribe the building plan, having a side equal to 130.5 palms, then the internal diameter of the cell with a circular base is defined, equal to 42.5 palms. Already at this point, we highlight a discrepancy between Cipriani's drawing and its relative: in fact, by redrawing these lines on the drawing, we can see how the diameter roughly corresponds to that of the external

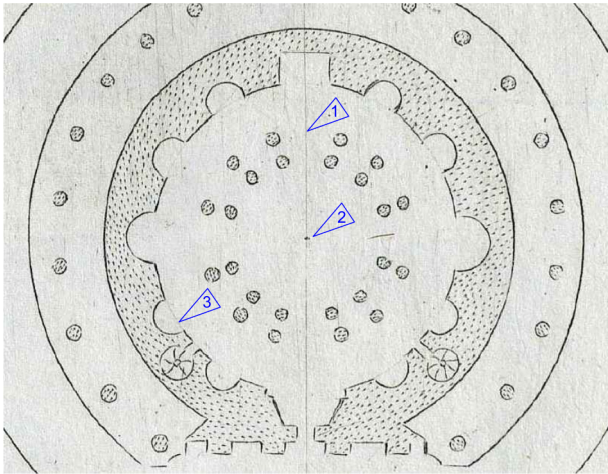
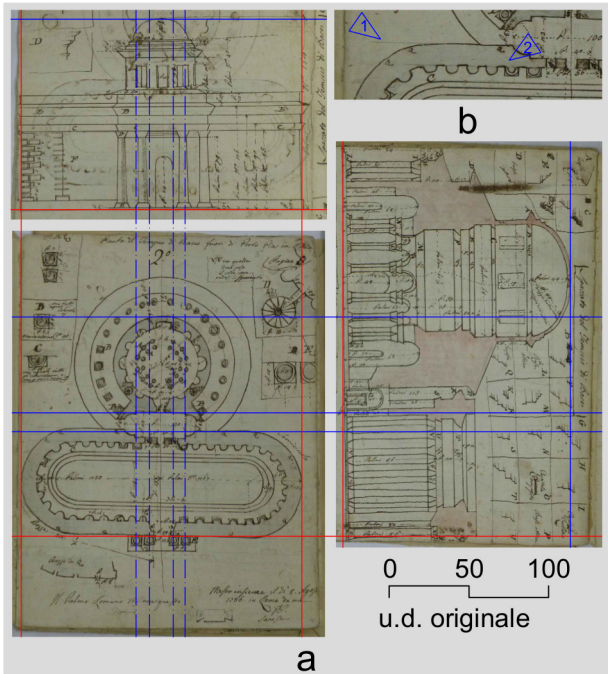


Fig. 6. Traces of geometrical constructions in Montano: Montano 1684a, tav. 42 (graphic overlay by M. Pavignano).

Fig. 7. Tempio di Baccho fuori di Porta Pia in Roma. a) analysis of the proportions between views; b) highlighting traces of constructing lines (graphic overlay by M. Pavignano).



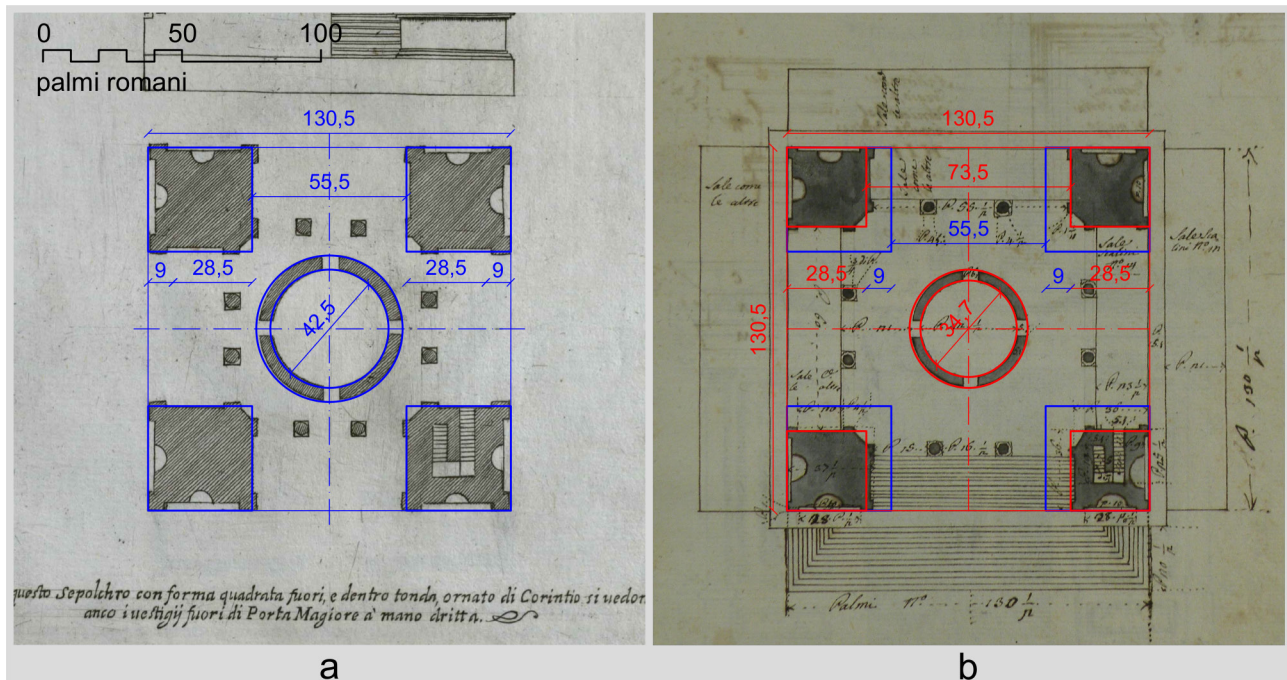
circumference and not to the internal one. But it is in defining the reciprocal position of the pillars that we notice the first difference between Cipriani's and Montano's plan (fig. 8).

In fact, if we keep the reference dimension, equal to 55.5 palms, we would obtain a situation very similar to that drawn by Montano, but Cipriani's drawing betrays this intention by indicating a clearly greater distance. Furthermore, if the measurements related to the widths of (two) pillars, equal to 28.5 palms by two, therefore 57 palms, are added to that of the light between them, 55.5 palms, we obtain 112.5 palms: a difference of 18 palms with the declared width of the side of the base square, 130.5 palms. If we assumed the width of the external step tangent to the pillars equal to 9 palms, one could think that this difference of 18 palms is relative to this element, however the Author measures it with a measure equal to 5.5 palms, or 11 palms in total and not 18. Similarly, if we start from Montano's plan, it is possible to notice how, by imposing the size of the basis square equal to 130.5 palms and the width of the pillars equal to 28.5 palms, we obtain a discrepancy of 9 palms per side, so 18 palms in total. Here, therefore, that the relationship between graphic source, its survey, redrawing, and measurement is immediately clarified: Cipriani really surveyed the Montano's plan, but immediately implemented a process of re-composition (if we exclude errors of interpretation).

A similar example is suggested by object 11, *Tempio Antico* (or *Tempio della Fortuna Virile*, following Montano's caption). In this case, Cipriani's plan clearly assumed to the role of eidotipo (technical sketch) for the survey of the reference model (fig. 9).

The measurements shown are basically those of Montano's temple plan, however, also in this case Cipriani carried out a process of re-composition of the object studied. In fact, he added data related to a possible *podium*, including an access stairway to the stylobate floor. Also this second example on the one hand confirms what has already been highlighted by Pas-

Fig. 8. Survey of graphic sources, I. Sepolcro di forma quadrata fuori; e dentro tonda, ornato di Corintio, di cui vedonsi i vestigi fuori di Porta Maggiore. a) Montano 1684b, tav. XXV; b) Cipriani 1786-1791, c. 2r (graphic overlay by M. Pavignano).



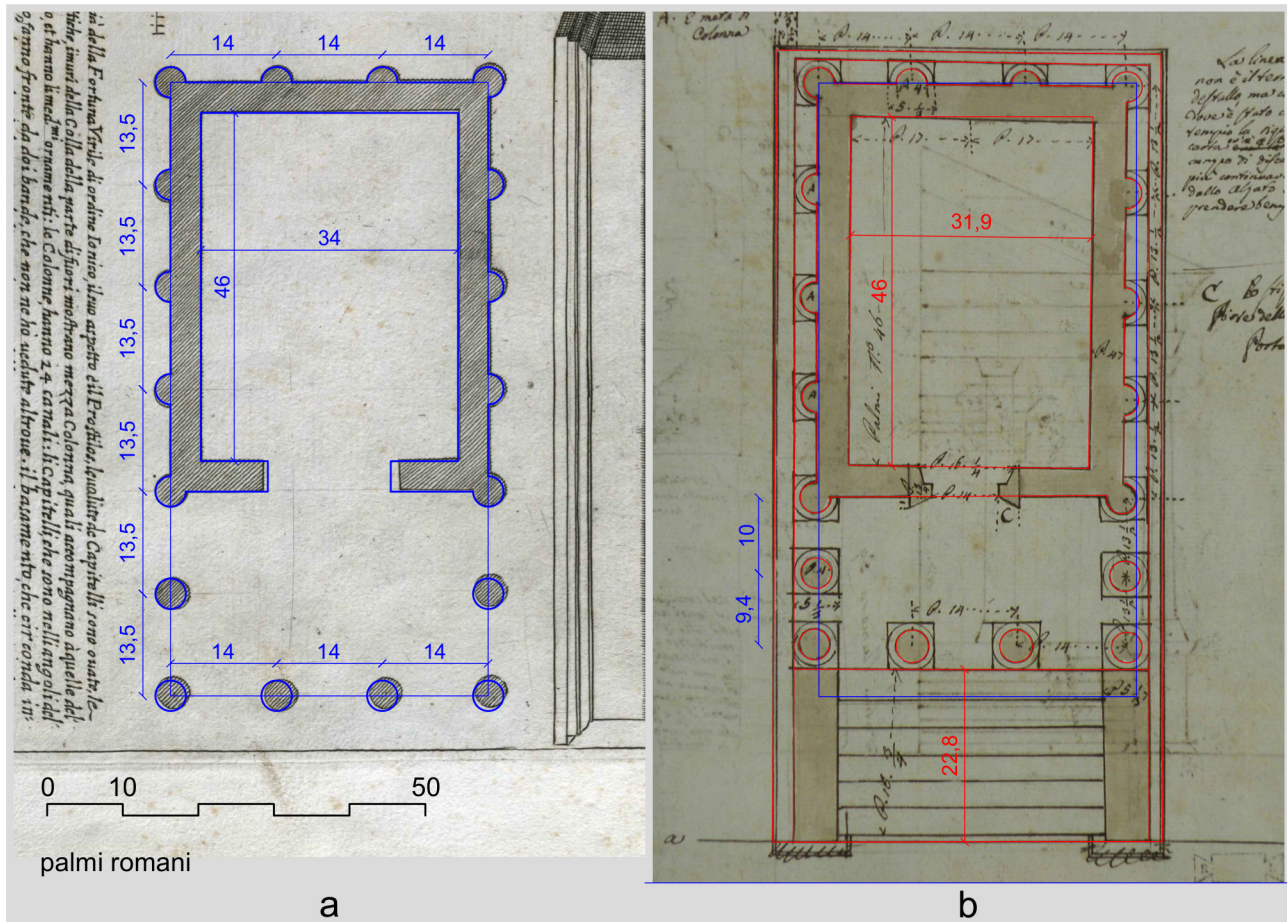


Fig. 9. Survey of graphic sources, 2. Tempio antico. a) Montano 1684b, tav. II; b) Cipriani 1786-1791, c. 14r (graphic overlay by M. Pavignano).

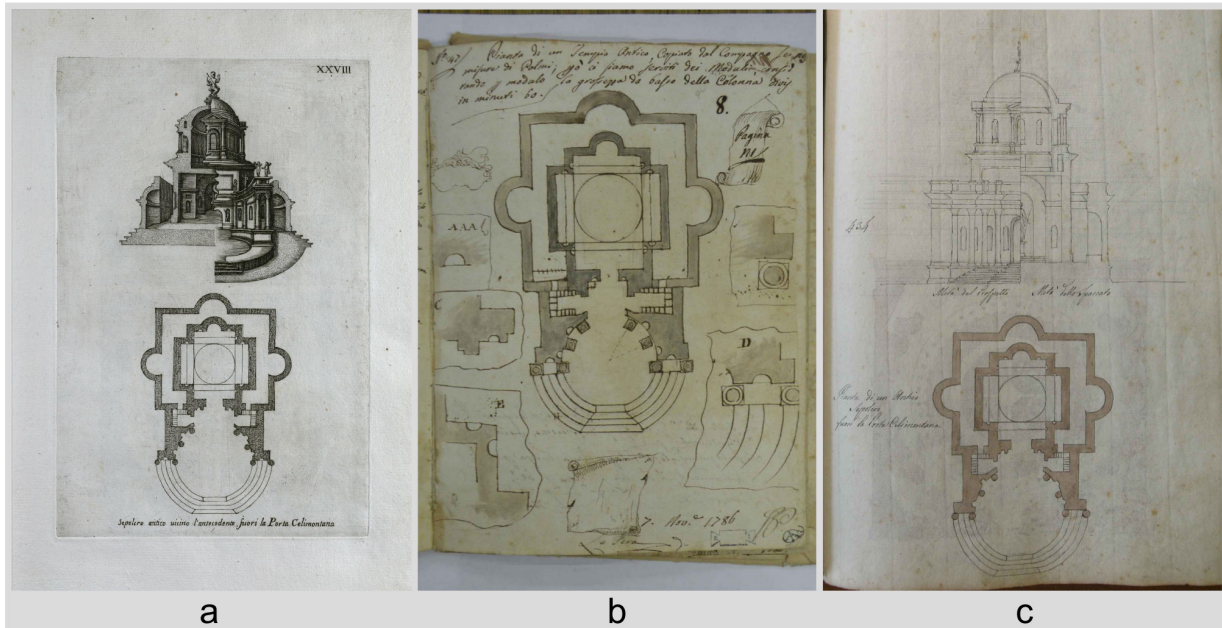
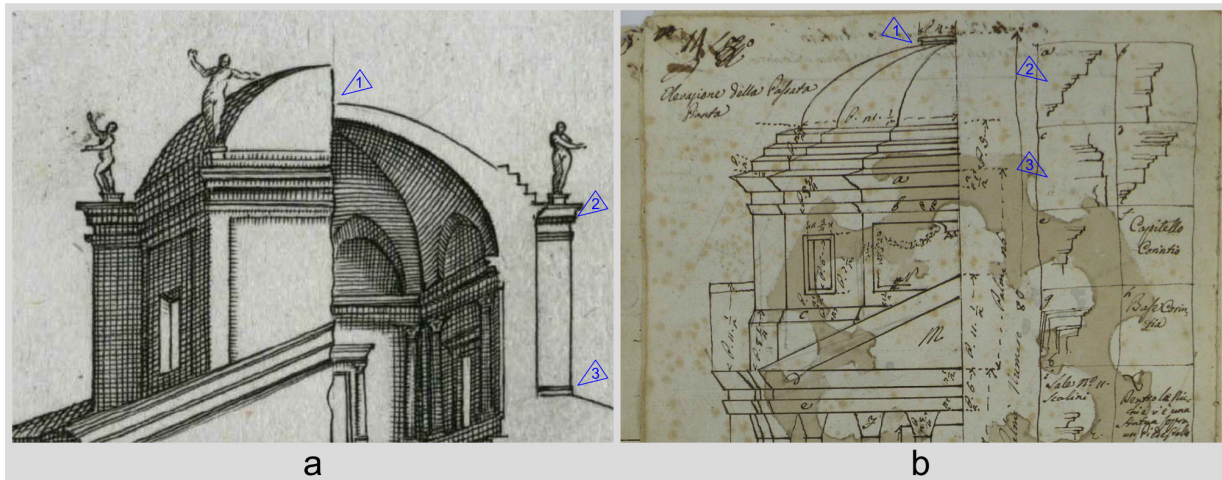


Fig. 10. Survey of graphic sources, 3, architectural mouldings. Details of the Sepoltura fatta dagli antichi d'Ordine Dorio, e Corintio. a) Montano 1684b, tav. XXIV; b) Cipriani 1786-1791, c. 8v (graphic overlay by M. Pavignano).

Fig. 11. Tempio Antico, copiato dal compagno. A). Montano 1684b, tav. XXVIII; b) Cipriani 1786-1791, c. 10r; c) Cipriani 1801 et seq., f. 65r.

quali [Pasquali 2002] and Debenedetti [Debenedetti 2015], on the other it suggests a more complex process of surveying and reworking the artefacts starting from the plants, not limited to elevations only.

Then, the author proves to enter the merits of the critical analysis of a reference graphic model within the descriptions of the details. In fact, the process of interpreting Montano's sparse descriptions is evident for example in the object 5, *Sepoltura fatta dagli antichi d'Ordine Dorico, e Corintio*. Here Cipriani restored the complexity of architectural mouldings (see 2 and 3 in fig. 10a, 10b), with the attempt to respect the general indications of the source, however, he also added new ones (see 1 in fig. 10a, 10b).

In the end, I propose a comparison between work representing object 7, *Tempio Antico, Copiato dal Compagno*, which is the only building described in the *Taccuino*, c. 10r, by means of a single view, lacking any dimension (fig. 11a, 11b). Cipriani's dual function of the drawing is thus evident: as an *eidotipo* (technical sketch) on which noting the dimensions retrieved on the Montano tables via direct measurement [Montano 1684b, pl. XXVIII] and as a tool for exploring the formal languages of neoclassicism, for example with regard to the formalization of the relationship between free columns and façade. Furthermore, by comparing the same drawing in the *Taccuino* with the object 436 in the *Libraccio* [Cipriani 1801 et seq. 65r] (figs. 11b, 11c) we can introduce Cipriani's third declination of the function of drawing, that is to explicitly materialize the value of eidetic memory [Pavignano 2019, p. 91].

## Conclusions

Giovanni Battista Cipriani's work promotes an awareness of the close relationship between architecture and measure, articulated through the re-signification of predetermined graphic images. These provide the pretext for a critical reinterpretation of the models provided by them, passing through the abstraction of the measure in Roman palms, here risen to a sort of dimensionless module of the entire and, perhaps, suggesting a real practice of survey of the graphic source, at least for the plans of each model. Therefore, it is possible to assert that

Montano's plates provide models acting as much as an objects to be copied, the *paradéigma* of classical memory [Scolari 2005 pp. 131, 132], as well as mental models that, when properly elaborated, can lead to the definition of new compositional constructs that give life to that "imaginative dramatization" which is fundamental for the teaching of architecture [Gay 2020, p. 73]. In other words, Cipriani's experience configured the practice of surveying a graphic source, or the analysis of the dimensional characteristics of a drawn artefact, as a fundamental step for the constitution of the student's/architect's memory. In fact, this was one of the first steps of a long professional path that, even if never related with a professional practice of a compositional nature, was ideally concluded with a process of physical sedimentation of the idea of architecture and measurement in the eidetic memory of the Author. The *Taccuino Lanciani 33* expresses statement and the *Libraccio* [Cipriani 1801 et seq.] recalled the function of Juvarra's *pensieri*.

There is a fundamental interconnection between student's exercise and the professional activity which involved Cipriani as creator of graphic contents for the study of Architecture, aimed at the perceptual analysis of the built for its dissemination to wider audience possible, by means of the small images of the *Itinerario figurato di Roma*, 1835, as postulated through the analytical sketches preserved in Cipriani's last *Taccuini*.

At this point we are encouraged in interpreting the eidetic nature (fundamentally and perhaps fortuitously) of the training path that here I have tried to outline. It is clear how the same path was at the basis of many of the graphic reasonings that Cipriani implemented with assiduity throughout his professional career, constantly pondering the relationship between reference models and its critical re-interpretation, with purposes that are not always comparable.

## Credits

For images in [Montano 1684a] and [Montano 1684b]: Arachne, Creative Commons License (BY-NC-ND 3.0).

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For images in [Cipriani 1801 et seq.]: BNCRm, all rights reserved.

## Notes

[1] Abbreviations used in the contribution. Arachne: iDAI-objects Arachne. Central object database of the German Archaeological Institute (DAI). BiASA: Biblioteca di Archeologia e Storia dell'Arte Polo Museale del Lazio. BNCRm: Biblioteca Nazionale Centrale di Roma. BNTto: Biblioteca Nazionale Universitaria di Torino.

[2] This is not the place to discuss the various editions of G. B. Montano's works, since the 1684 edition contains all the graphic ref-

erences used by Cipriani. For a critical overview of the seventeenth-century editions of Montano's works see Dallaj 2017.

[3] Such traces are present both in the editio princeps [1624] and in that of 1684, which I consulted. It is likely that these are the traces left on the copper plates by a metal stylus capable of scratching the copper in a phase of pre-transposition of the drawing on the copper plate. This practice could "also make use of compasses, rulers and squares" as indicated in Dallaj 2017, p. 85.

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